

How Low to Go?

Blood glucose and heart health

In February, researchers made a surprising announcement: In their study, people with type 2 diabetes who were practicing “intensive” blood glucose control had a higher death rate than participants who were practicing “standard” control. The news seemed to call into question the idea that with blood glucose, “lower is always better.” But experts say it’s too soon to know whether people with type 2 diabetes and their doctors should change individual treatment regimens, particularly in light of other studies.

Researchers in the Action to Control Cardiovascular Risk in Diabetes (ACCORD) trial made their statement as they halted the intensive glucose control segment of their study. The trial is looking at the cardiovascular effects of a more intensive versus less intensive approach to managing blood pressure, cholesterol, and blood glucose. More than 10,000 men and women are participating, all of whom are at increased risk for heart disease.

Those in the intensive blood glucose lowering section, who were aiming for an A1C below 6 percent, had a 25 percent greater risk of cardiovascular death than the group practicing less stringent control, who had an A1C target of 7 to 8 percent. (The A1C is a

blood test that shows average blood glucose over the previous two to three months. In people without diabetes, it usually ranges from 4 to 6 percent.) Obvious potential culprits—hypoglycemia or a specific drug—do not appear to explain the deaths. Researchers continue to crunch the numbers looking for answers. Notably, both groups had a much lower mortality rate than would be expected in people of this age, duration of diabetes, and risk status.

The ACCORD findings contrast sharply with decades of research showing that people with type 2 diabetes who have lower A1Cs are *less* likely to have cardiovascular events than those with higher A1Cs. Intensive glucose control has also been shown, in large studies of both type 1 and type 2, to lower the risk of diabetes complications such as those affecting the eyes, kidneys, and nerves. And long-term follow-up of a major type 1 study showed that intensive control lowered the risk of cardiovascular events and deaths.

Two other ongoing studies are examining the relationship between blood glucose control and cardiovascular health in type 2 diabetes. The results of the Veterans Affairs Diabetes Trial won’t be announced for a few months, but lead author Carlos

Abraira, MD, says that the study’s safety monitoring board held an emergency meeting to review preliminary results and found no cause to stop the trial. “We haven’t found a significant difference in mortality in our intensive [group],” he says. Researchers from ADVANCE, an Australian study, said that they too had not seen increased cardiovascular mortality in their intensive group.

Next steps

So what does this all mean for people with diabetes? In one sense, it’s business as usual. “The important message, at least today,” says John Buse, MD, president, Medicine and Science, of the American Diabetes Association and vice chairman of the ACCORD trial’s steering committee, “is we should stick by the recommendation that in general for people with diabetes, an A1C target of less than 7 is appropriate.”

While there may be further benefit to a lower A1C, this may not be the best approach for some people. ACCORD suggests that very intensive therapy aimed at getting A1C below 6 percent may be detrimental, at least in middle-aged or older adults with vascular disease or multiple risk factors for it. Regardless, it’s crucial that people not make any changes in their medications until talking with doctors, keeping in mind that there are other proven ways to reduce the risk of cardiovascular disease.